## **CLAIMS ONLY**

FILING DATE

|              |                         | AS FILED        |  |               |           | 1st | AF<br>AME    | TER<br>NDME | NT        | AFTER<br>2nd AMENDMENT                           |              |  |          |  |
|--------------|-------------------------|-----------------|--|---------------|-----------|-----|--------------|-------------|-----------|--|--------------|--|----------|--|
|              |                         | DATE            | <u>.                                    </u> | DE            | P.        | ÜNI |              | DEI         |           | INI  |              | DE   | _        |  |
|              |                         |                 |  |               |           |     |              | $\vdash$    | _         | <del>                                     </del> |              |  | ÷        |  |
| 2            |                         |                 |  |               |           |     |              |             |           |  |              | <del>                                     </del> |          |  |
| 3            |                         | L               |  |               |           |     |              |             |           |  |              |  | _        |  |
| 4            |                         |                 |  |               |           |     |              |             |           |  |              |  | _        |  |
| 5            | _                       |                 | _  |               | Ц         |     |              |             |           |  |              |  |          |  |
| 6            |                         |                 |  | {             | _         |     |              | L           |           |  |              |  |          |  |
| - <u>7</u>   |                         |                 | -  |               | _         |     | _            | L           | _         |  |              |  |          |  |
| 9            | $\neg$                  |                 | -  |               | -         |     | _            |             |           |  | _            |  |          |  |
| 10           | ᅱ                       |                 | -  | +             | ᅱ         |     |              |             | -         |  | _            |  | _        |  |
| 11           | ᅥ                       |                 | +  | $\rightarrow$ | $\dashv$  |     | -            |             | $\dashv$  |  |              |  |          |  |
| 12           |                         |                 | 7  | <del>-</del>  | ┪         |     | $\dashv$     |             | +         |  | +            |  | _        |  |
| 13           | $\neg$                  |                 | 1  | 1             | ヿ         |     | $\dashv$     |             | $\dashv$  |  | +            |  | _        |  |
| 14           |                         |                 | 7  |               | $\dashv$  |     | 7            |             | $\dashv$  |  | +            |  | ᅱ        |  |
| 15           |                         |                 |  | 1             | 7         |     | 寸            |             | 7         |  | +            |  | $\dashv$ |  |
| 16           | _                       |                 |  | ζ             | $\Box$    |     | $\neg$       |             | $\exists$ |  | 7            |  | ᅥ        |  |
| 17           | 4                       |                 | 1  | _(_           | $\perp$   |     |              |             | T         |  | 7            |  | ᅦ        |  |
| 18           | -                       |                 | 4  | Ť             | _         |     |              |             | $\Box$    |  |              |  | ╗        |  |
| 19           | +                       |                 | 4  | 1_            | 4         |     | 4            |             | 4         |  |              |  |          |  |
| 20<br>21     | $\dashv$                |                 | +  | <del>-</del>  | 4         |     | 4            |             | 4         |  | 4            |  |          |  |
| 22           | $\dashv$                |                 | +  | -+            | +         |     | 4            |             | 4         |  | 4            |  | 4        |  |
| 23           | ╁                       |                 | ╁  |               | +         |     | 4            |             | -1-       |  | 4            |  | 4        |  |
| 24           | $\dashv$                | -+              | +  | 7             | +         |     | +            |             | +         |  | +            |  | 4        |  |
| 25           | $\top$                  |                 | ╁  |               | +         |     | ╁            |             | +         |  | +            |  | 4        |  |
| 26           | 7                       |                 | $^{\dagger}$                                 |               | $\dagger$ |     | +            |             | +         |  | +            |  | 4        |  |
| 27           |                         |                 | $\top$                                       | 1             | $\dagger$ |     | $^{\dagger}$ |             | $^{+}$    |  | +            |  | $\dashv$ |  |
| 28           | $oldsymbol{\mathbb{I}}$ |                 |  | 1             | 1         |     | $\dagger$    |             | +         |  | +            |  | $\dashv$ |  |
| 29           | 1                       |                 | $\perp$                                      | T             | $\perp$   |     |              |             | 1         |  | †            |  | ┨        |  |
| 30           | 1                       |                 | ┸  | <u>i</u>      |           |     |              |             | T         |  | T            |  | 7        |  |
| 31           | - -                     |                 | 4  | <u> </u>      | 1         |     | I            |             | Ι         |  | T            |  | 7        |  |
| 32           | +                       |                 | +  |               | 4         |     | $\perp$      |             | $\perp$   |  |              |  | ]        |  |
| 34           | ╁                       |                 | +  | ᆜ             | +         |     | 4            |             | 1         |  |              |  | ]        |  |
| 35           | ╁                       | <del>-,</del> - | +-   |               | ╀         |     | +            |             | ╀         |  | 1            |  | 1        |  |
| 36           | +                       |                 | ╁  | <del></del> - | ╀         |     | +            |             | ╀         |  | $\downarrow$ |  | 1        |  |
| 37           | 十                       |                 | ╁  | <del>-</del>  | ╁         |     | ╀            |             | ╀         |  | ╀            |  | ┨        |  |
| 38           | $\top$                  |                 | t  | <del></del> - | †-        |     | ╁            |             | ╁         |  | ╀            |  | -        |  |
| 39           | T                       |                 | T  | <del>-</del>  | t         |     | ╁            |             | ╁         |  | ╁            |  | ┨        |  |
| 40           |                         |                 |  | <del>-</del>  |           |     | T            |             | ╁╌        |  | ╁╴           |  | ┨        |  |
| 41           | $\Box$                  |                 | Г  | T             | Γ         |     |              |             | †         |  | t            |  | 1        |  |
| 42           | L                       |                 | L  |               | $\prod$   |     |              |             | Τ         |  |              |  | 1        |  |
| 43           | ┞-                      |                 | <u> </u>                                     |               |           |     | L            |             |           |  | Γ            |  | 1        |  |
| 44           | -                       | <u>·</u>        | ┞_   |               | L         |     | L            |             |           |  |              |  | 1        |  |
| 45<br>46     | -                       |                 | -  |               | -         |     | _            |             | L         |  |              |  | 1        |  |
| 45           | ⊢                       |                 | ├-   |               | -         |     | L            |             | L         |  |              |  |          |  |
| 48           | ┢                       |                 | <u> </u>                                     |               | -         |     | _            |             | <u> </u>  |  | L_           |  |          |  |
| 49           | $\vdash$                |                 | -  |               | ├-        |     | -            |             | L_        |  | _            |  |          |  |
| 50           | ┢╌                      |                 | -  | -             | -         |     | -            |             | <u> </u>  |  | _            |  |          |  |
| OTAL         | 6                       | ,               | -  | _             | -         |     | ۲            | _           |           |  |              |  |          |  |
| IND.<br>OTAL | ٦,                      | ᆽᅴ              | •  | •             | _         |     | _            |             |           |  | _            | 1  |          |  |
| OTAL<br>DEP. | Ĵ                       | <u> </u>        | _  |               |           |     | _            |             |           |  | -            | •  |          |  |
| OTAL<br>AIMS | 4                       |                 |  |               |           |     |              |             |           |  |              |  |          |  |

| CLAIMS   | 3               |  |          |    | _       |   | _                       |        | _    |          |          |          |
|----------|-----------------|--|----------|----|---------|---|-------------------------|--------|------|----------|----------|----------|
|          |                 | 1  |          |    | _       | * |                         |        | _    | *        |          |          |
|          |                 | a  | IND.     |    | DEP.    |   | IND.                    |        | DEP. |          | IND.     |          |
|          | 51              |  |          |    |         |   |                         |        |      | UND      | $\dashv$ | DEI      |
|          | 52              |  |          |    |         |   |                         |        |      |          | $\dashv$ |          |
| •        | 53              | ┷  |          |    |         |   |                         |        |      |          | 7        |          |
|          | 54              |  |          |    |         |   | $\Box$                  |        |      |          |          |          |
|          | 55              | ┽  |          |    | _       |   | 4                       |        | _]   |          |          |          |
|          | <u>56</u><br>57 | +  |          |    |         |   | -                       |        | _    |          | $\bot$   |          |
|          | 58              | ╁  |          |    |         |   | -                       |        | 4    |          | 4        |          |
|          | 59              | +  | $\dashv$ |    |         |   | +                       |        | 4    |          | 4        |          |
|          | 60              | <del>                                     </del> |          |    | -+      |   | $\dashv$                |        | +    |          | +        |          |
|          | 61              | 1  |          |    | 7       |   | +                       |        | +    |          | +        |          |
| - 1      | 62              |  |          |    | 7       |   | 7                       |        | +    |          | +        |          |
|          | 63              |  |          |    |         |   | 7                       |        | 7    |          | +        |          |
|          | 64              | _  |          |    | $\Box$  |   |                         |        | 7    |          | +        |          |
| ļ        | 65_             | ╀  | _        |    | 4       |   | $oldsymbol{\mathbb{I}}$ |        |      |          | 7        |          |
| ŀ        | 66              | ╂  | -        |    | 4       |   | 4                       |        | I    |          | I        |          |
| ŀ        | 67<br>68        | ┼  | -+       |    | -1      |   | _                       |        | 1    |          | 1        |          |
| ŀ        | 69              | ┼  | -        |    | -+      |   |                         |        | 4    |          | 4        |          |
| ŀ        | 70              |  | +        |    | +       |   | +                       |        | 4    |          | +        |          |
| j        | 71              | <del>                                     </del> | $\dashv$ |    | +       |   | +                       |        | +    |          | ╀        |          |
| Ī        | 72              | † -  | _        |    | +       |   | ╁                       |        | ╁    |          | +        |          |
|          | 73              | T-   | $\top$   |    | +       |   | ╁                       |        | ╁    |          | ╁        |          |
|          | 74              |  |          |    | 7       |   | 十                       |        | +    |          | ╁        |          |
| -        | 75              |  |          |    |         |   | T                       |        | T    |          | ╁        |          |
| -        | <u>76</u>       | <u> </u>   | $\perp$  |    | $\Box$  |   | I                       |        | T    |          | †        |          |
| -        |                 |  | 4        |    | 1       |   | $\perp$                 |        | Ī    |          | T        |          |
| ŀ        | 78              | <u> </u>   | +        |    | 4       |   | $\perp$                 |        | L    |          | I        |          |
| -        | 79<br>80        | -  |          |    | +       |   | +                       |        | ╀    |          | L        |          |
|          | 81              |  | +        |    | ┿       |   | ╁                       |        | ∤.   |          | ╀-       |          |
| T        | 82              |  | +        |    | ╁       |   | ╁                       |        | ╀    |          | ╀        |          |
|          | 83              |  | $\top$   |    | ╁       |   | +                       |        | ╀    |          | ╀        |          |
|          | 84              |  | $\top$   |    | †       |   | +                       |        | ╁    |          | -        |          |
|          | 85              |  |          |    | †       |   | †-                      |        | t    |          | ╁╴       |          |
| <u> </u> | 86              |  | $\perp$  |    | Ι       |   | 1                       |        | 1    |          | $\vdash$ |          |
| -        | 87              |  |          |    | $\Box$  |   |                         |        |      |          |          |          |
| ⊢        | 88<br>89        |  | $\bot$   |    | $\perp$ |   |                         |        |      |          |          |          |
| -        | 90              |  | +-       |    | ╀       |   | ļ                       |        | L    |          |          |          |
| <u> </u> | 91              |  | +        |    | ⊬       |   | ├-                      |        | _    |          |          |          |
| -        | 92              |  | ╁        |    | ╆       |   | -                       |        | _    |          |          |          |
|          | 93              |  | +        |    | +-      |   | ├                       |        | _    |          |          |          |
|          | 94              |  | +-       |    | 1       |   | ┝╌                      |        |      |          |          |          |
|          | 95              |  | $\top$   |    |         |   |                         |        |      |          |          |          |
|          | 96              |  | Ι        |    | Г       |   | _                       |        | _    | $\dashv$ |          |          |
| <u> </u> | 97              |  |          |    |         |   |                         |        |      |          |          |          |
| _        | 98              |  | $\perp$  |    |         |   | _                       |        |      |          |          | $\dashv$ |
|          | 99              |  | $\perp$  |    |         |   |                         |        |      |          | _        | $\neg$   |
| _        | 100             |  | _        |    |         | [ |                         | $\Box$ | _    |          | _        |          |
|          | TAL<br>ND.      |  | J 🕳      | Į. |         |   | _                       | ı T    |      | T        |          |          |
| 0        | TAL<br>EP.      |  | -        | •  |         |   | <b>—</b>                | *      | _    |          | <u> </u> | •        |
| χo       | ITAL<br>AIMS    |  |          |    |         |   |                         |        | -    |          |          | _        |

\* MAY BE USED FOR ADDITIONAL CLAIMS OR ADMENDMENTS

ጉ-2022 (1-98)

U.S.DEPARTMENT OF COMMERCE Patent and Trademark Office

"U.S. GPO: 1998-443-593/89152